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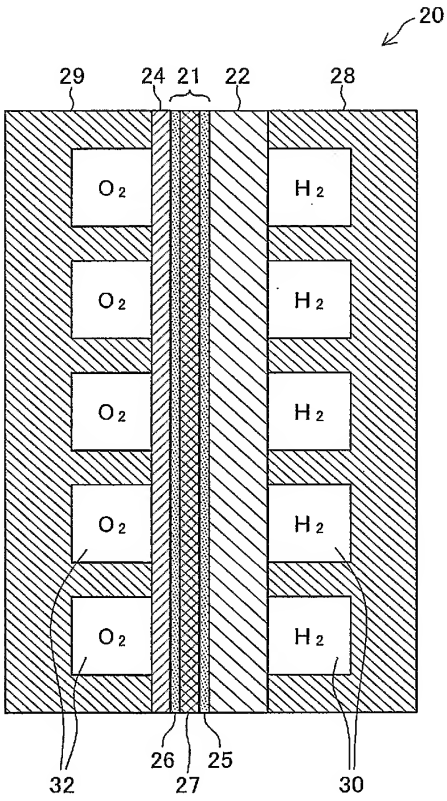
(54) Title: SOLID OXIDE FUEL CELL WITH MULTILAYER ELECTROLYTE



(57) Abstract: A fuel cell having a single cell 20 comprises a hydrogen permeable metal layer 22 and a cathode 24 as layers equipped with catalytic metal for promoting a reaction of a labile substance supplied to the fuel cell during production of electricity in the fuel cell. Also, the fuel cell has an electrolyte layer 21 formed with a solid oxide. The electrolyte layer 21 has a high grain boundary density electrolyte layer 27, and low grain boundary density electrolyte layers 25 and 26 as decomposition reaction suppress parts to suppress a decomposition reaction of the solid oxide due to the catalyst metal.

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